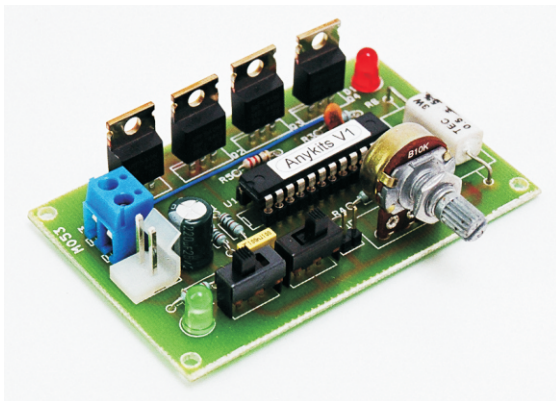


DC MOTOR SPEED & DIRECTION CONTROLLER WITH BRAKE USING MC33035

3AMP DC Motor speed and direction controller using MC33035 IC from on semiconductor, though the MC33035 was designed to control brushless DC motor , it may also be used to control DC brush type motors. MC33035 driving a Mosfets based H-Bridge affording minimal parts count to operate a brush type motor. On board potentiometer provided for speed control, slide switch for direction control and brake, On board jumper available to enable the chip. The controller function is normal manner with a PWM frequency of approximately 25Khz. Motor speed is controlled by adjusting the voltage presented to the no inverting input of the error amplifier establishing the PWM's slice or reference level. Cycle by cycle current limiting of the motor current is accomplished by sensing the voltage across the shunt resistor to ground of the H-bridge. The overcurrent sense circuit makes it possible to reverse the direction of the motor, using normal forward/reverse switch, on the fly and not have to completely stop before reversing.

- SUPPLY 12-18V DC
- Load Up to 3Amps, 5Amps with large size heat sink on Mosfets
- On Board Potentiometer for Speed Control
- Slide Switch (SW1) for Brake
- Slide Switch (SW2) for Direction Control
- Jumper (J1) Provided to Enable the chip
- LED (D1) Fault Indicator
- LED (D2) Power Indicator
- CN1 , Supply 12-18V DC
- MG1 Motor Connections



BOM			
SR.	QNTY.	REF.	DESC.
1	1	CN1	2 Pin Connector
2	1	C1	5K6PF
3	1	C2	1KPF
4	1	C3	10uF/25V
5	1	C4	0.1uF
6	2	D1,D2	LED
7	1	J1	ENABLE
8	1	MG1	2 Pin Screw Terminal
9	2	P1,R4	10K
10	2	Q1,Q2	IRF9540
11	2	Q3,Q4	IRF540
12	2	R1,R7	1K
13	1	R2	1K
14	1	R3	20K
15	2	R5,R6	22E
16	1	R8	0.1E/3W
17	1	R9	1K5
18	2	SW1,SW2	Slide Switch
19	1	U1	MC33035P
20	1	Socket	24 Pin IC Socket

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